

In the Specification

Please amend the following paragraphs, as follows.

Please replace paragraph 0052 with the following paragraph , amended as shown:

[0052] The system of the present invention can include a wide area network such as the Internet. Moreover, the method of the present invention can facilitate the creating, storing, indexing, searching, retrieving and rendering of multimedia information content on any device capable of connecting to the network and performing one or more of the aforementioned functions. The video-multimedia content can be one or more frames of video, audio data, text data such as a string of characters, or any combination or permutation thereof.

Please replace paragraph 0176 with the following paragraph , amended as shown:

[0176] Figure 3 shows an illustration of searching for multimedia contents that are relevant to the content information 314 (that correlates to element 214 of FIG. 2) that is stored in the multimedia bookmark ~~310 (that correlates to element 310 of FIG.2)~~210 of FIG. 2 of the present invention where both positional and content information are used. The content information 314 is comprised of audio-visual features 320 such as a captured frame 322 and a sampled audio data 324, and textual features 326 such as annotated text 328 and a title 330. There are many cases where a bookmark system that utilizes only positional information, such as URI and an elapsed time, such as that used by conventional bookmarks, may not be valid. For example, if a bookmark were generated during the preview of multimedia content broadcast, the bookmark would not be valid for viewing a full version of the broadcast. If a bookmark were saved during live Internet broadcast, the bookmark would not be valid for viewing an edited version of the live broadcast. Further, if a user wanted to access the bookmarked multimedia content from another site that also provides the content, even the positional information such as URI would be not be valid.

Please replace paragraph 0183 with the following paragraph , amended as shown:

[0183] Consider the different variations encoded from the same source multimedia content. A user generates a multimedia bookmark with respect to one of the variations that is to be called a bookmarked-bookmarked file. Then, the multimedia bookmark is used at a later time to play one

of the variations that is called a playback file. In other words, the bookmarked file pointed to by the multimedia bookmark, and the playback file selected by the user, may not be the same variation, but refer to the same multimedia content.

Please replace paragraph 0227 with the following paragraph , amended as shown:

[0227] 3. The server checks if the segment has annotated text. If so, go to step [[5]] 4. Otherwise, provide the user with the result of the frame-based video search and terminate.

Please replace paragraph 0233 with the following paragraph , amended as shown:

[0233] 3. The server checks if the segment at the specified position has annotated text. If so, go to step [[5]] 4. Otherwise, provide the user with the result of the frame-based video search and terminate.

Please replace paragraph 0262 with the following paragraph , amended as shown:

[0262] The content information can be obtained at the client or server side when its corresponding multimedia content is being played in networked environment. In case of a multimedia bookmark, for example, the image captured at a bookmarked position (3) can be obtained from a user's video player or a video file stored at a server. The title of a bookmark (5) might be obtained at a client side if a user types in his own title. Otherwise, a default title, such as a title of a bookmarked file stored at a server, can be used as the title of the bookmark. The textual annotations attached to a segment which contains the bookmarked position are stored in a metadata in which offsets and time scales of variations also exist for the durable bookmark. Thus, the textual annotations (4) and metadata ID (6) are obtained at a server.

Please replace paragraph 0266 with the following paragraph , amended as shown:

[0266] 2. Using an HyperText Markup Language (HTML) document: An HTML document can be sent via e-mail. All textual parts of bookmarked information can be directly included in the HTML document to be sent via e-mail. But the captured image in case of a multimedia bookmark cannot be directly included in the HTML from which the included image will be detached and stored at a receiver's local storage. This is because the image is represented in a binary file format. Sending the binary image within an HTML document can be possible by converting the

binary image into a text string with encoders, such as Base-16 or Base-64, and directly including it in an HTML document as a normal character string. The converted image is called as an inline media by which one can locate any multimedia file in an HTML document. When the HTML is sent to another user, the included text image is decoded into a binary image, thus being saved and displayed at the user's storage and screen, respectively. The receiving user may not view the detailed information, but can play the multimedia content from the bookmarked position. Table 3 is a sample HTML document which includes both the [[6]]captured content image and the last of the textual bookmarked information.

Please replace paragraph 0280 with the following paragraph , amended as shown:

[0280] Figure 21 illustrates an alternate embodiment of the present invention for playing video sequences on a mobile device. Specifically, the method begins generally at step 1, where the mobile device 2128 submits a request to the MSC 2124 to play the video associated with the multimedia bookmark. In step 2, the MSC 2128 sends the request with the multimedia bookmark to the VMSC 2118. It is often the case that the video pointed to by the multimedia bookmark cannot be streamed directly to the mobile device 2128. For example, if the marked video that is in high bit rate format is to be transmitted to the mobile device 2128, then the high bit rate video data might not be delivered properly due to the limited bandwidth available. Further, the video might not be properly decoded on the mobile device 2128 due to the limited computing resources on the mobile device. In that case, it is desirable to deliver a low bit rate version of the same video content to the mobile device 2128. However, a problem occurs when the position specified by the multimedia bookmark does not point to the same content for the low bit rate video. To solve the problem, prior to relaying the request to VS 2104, the VMSC 2118 decides which bit rate video is the most suitable for the current mobile device 2128. The VMSC 2118 also calculates the new marked location to compensate for the offset value due to the different encoding format or different frame rate needed to display the video on the mobile device 2128. After completing this internal decision and computation, in step 3, the VMSC 2118 sends the modified multimedia bookmark to the virtual video server 2104, using the server IP address designated in the multimedia bookmark. Thereafter, in step 4, the video server 2104 starts to stream the video data down to the VMSC 2118. Subsequently, in step 5, the VMSC 2118 passes the video data to the MSC 2124. Then, in step 6, the MSC 2124 delivers the video data to the

service requester, mobile device 2128. Steps 4 though 6 are repeated until the mobile device 2128 issues a termination request.